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**REMARKS**

Claims 1-15 and 17-26 remain in this application. Claims 1, 3, 6-8, 11-13, 20 and 22-24 have been amended, and claim 16 has been canceled.

Claims 3, 6-8, 11-15, 20 and 22-24 have been rejected under 35 U.S.C. §112, second paragraph, as allegedly being indefinite. Applicants submit that the above amendments to the claims overcome these rejections, as all claims now comply with 35 U.S.C. §112. Withdrawal of all rejections under 35 U.S.C. §112 is respectfully requested.

Claims 1-9, 13, 14, 15, 25 and 26 are rejected under 35 U.S.C. §103(a) as allegedly being unpatentable over Berlin et al in view of Kotani et al. Claims 10-12 are rejected under 35 U.S.C. §103(a) as allegedly being unpatentable over Berlin et al and Kotani et al, and further in view of Berlin et al (WO 97/22536). Claims 16-18 are rejected under 35 U.S.C. §103(a) as allegedly being unpatentable over Berlin et al and Kotani et al and further in view of Farrell et al. Claims 19-24 are rejected under 35 U.S.C. §103(a) as allegedly being unpatentable over Berlin et al and Kotani et al, and further in view of Kobinata et al.

Independent claim 1 has been rewritten to include the features from claim 16. Accordingly, amended independent claim 1 is directed to a method of producing a laminated packaging material comprising a core layer of paper or paperboard and a barrier layer applied on one side of the core layer. A liquid barrier composition including a dispersion or solution of a polymer and an inorganic laminar compound is applied as a barrier layer on at least one side of a carrier layer. The carrier layer consists of paper, and the liquid barrier composition is dried during heating for driving off the dispersant or

solvent, whereafter the carrier layer with the applied, dried barrier layer, is combined and permanently united with one side of the core layer.

The Office Action relies upon Berlin et al for allegedly disclosing forming a laminated packaging material by coating an aqueous polymer dispersion on a carrier layer, drying it to form a barrier layer, and bonding the carrier and barrier layer to a paper core. The Office Action recognizes that Berlin et al does not disclose the barrier layer having an inorganic laminar material mixed therein. Kotani et al is relied upon for allegedly disclosing a gas barrier composition made of a polymer and an inorganic laminar material. The Office Action states that it would have been obvious to one of ordinary skill to add the inorganic laminar material of Kotani et al to the gas barrier composition of Berlin et al since this would reduce the oxygen permeability of the layer.

In the rejection of claims 16-18, in section 5 of the Office Action, it is stated that Farrell et al discloses a packaging material having both a paper core and a paper layer which can be joined using PVA. The Office Action contends that it would have been obvious to one of ordinary skill to replace the polylactide layer of Berlin et al and Kotani et al with a paper layer since it is a well-known alternative to a plastic layer in the package making arts.

Applicants submit that although Berlin et al does mention the possibility of coating a barrier polymer dispersion onto a plastic film and then laminating the film further into a laminated structure, neither Berlin et al, Kotani et al nor Farrell describe performing the dispersion coating and drying operations on a carrier layer separate from the core layer, and then combining the carrier layer with the core layer. This method avoids the necessity of performing the dispersion coating and drying operations directly in the packaging

material converting line, as in Berlin et al, and allows for the carrier layer with the applied, dried barrier layer to be laminated in the converting line in an analogous manner to that of an aluminum foil barrier.

Applicants further submit that it would not have been obvious to replace the polylactide layer of Berlin et al and Kotani et al with a paper layer since a carrier layer made from paper is not merely an alternative to a plastic carrier layer, but actually provides an improved carrier layer, since it does not have the same sensitivity to the drying and post-curing treatment heat as a substrate of plastic film. A polymer film may shrink or be deformed from the heat. Furthermore, if the paper substrate carrier layer is sufficiently thin, the liquid barrier dispersion will not be able to penetrate into the paper, but rather would stay on the surface as intended.

Applicants further submit that Farrell does not disclose that a dispersion coating may be applied to a thin paper carrier layer, which is then joined with another paper core layer in a laminate. In contrast to the Applicants' claimed invention, as now set forth in amended independent claim 1, Farrell describes that PVOH is extrusion coated just like any other thermoplastic polymer. Lamination of two layers to each other by means of extruding an intermediate hot molten polymer between the layers is well-known in the art. Farrell describes in Figures 4 and 8 that a paper substrate is wetted by water to improve the bond of the extruded PVOH plastics layer to the paper layer and that two paper layers may be laminated to each other by extrusion lamination. Farrell does not describe dispersion coating of a polymer dispersed in water and then drying to drive off the water.

For at least the above reasons, Applicants submit that amended claim 1 is directed to a novel combination of features neither disclosed nor suggested in Berlin et al, Kotani et

al or Farrell et al. Withdrawal of the rejections under 35 U.S.C. § 103 is respectfully requested.

Applicants further submit that all dependent claims 2-15 and 17-24 are also patentable for at least the same reasons as discussed above with regard to amended independent claim 1, from which they depend, and moreover for the additional features that they recite. In particular, dependent claim 17 requires that the carrier layer consists of paper with a grammage of approximately 5-35 g/m<sup>2</sup>. The paper layer referred to in Farrell is an uncoated product having a basis weight in the order of 40-100 lbs/ream, i.e., 64-163 g/m<sup>2</sup>. Therefore, neither Farrell nor any of the other applied references disclose or suggest this feature of claim 17.

With regard to claims 19-23, the carrier layer bears a barrier layer on one or both sides, and is united with the core layer. In contrast to this novel combination of features, Kobinata discloses extrusion lamination of a greaseproof paper to a paper board layer. The greaseproof paper is a special kind of paper included in the laminate as a grease barrier, and does not provide a carrier layer for a barrier polymer dispersion. Therefore, Applicants submit that no motivation exists to combine the teachings of Kobinata with the disclosures of Berlin et al. and Kotani as suggested in the Office Action.

With regard to claim 24, the layer of plastic supplied between the core layer and the carrier layer or said barrier layer includes a substance functioning as a light barrier. This substance functioning as a light barrier is not the extruded polymer layer, but something that is added to the polymer, for example carbon black. Applicants submit that the adhesives of Berlin et al and Kobinata do not provide light barrier properties. Therefore, the applied references do not teach or suggest the features of claim 24.

For at least the reasons set forth above, Applicants submit that all remaining claims 1-15 and 17-26 are novel and nonobvious in view of all of the references of record, whether considered alone or in combination. Withdrawal of all rejections is therefore respectfully requested.

Prompt issuance of a Notice of Allowance is earnestly solicited. In the event any questions arise regarding this communication or the application in general, please contact Applicants' undersigned representative at the number listed below.

Respectfully submitted,

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